

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

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In Re Application Of: §
Albert Charles McNamara § Attorney Docket No.: P-109009(Reissue)
§
Patent Number: 5,901,641 § Group Art Unit:
§
Filed: May 11, 1999 § Examiner:
§
Title: Baffle for Deep Fryer Heat Exchanger §

Commissioner of Patents and Trademarks
Washington, D.C. 20231

INFORMATION DISCLOSURE STATEMENT

Applicant files the following Information Disclosure Statement in accordance with 37 CFR §1.97 and 1.98, and MPEP §609. The information disclosure statement submitted herewith is being filed within three months of the filing date of the application or date of entry into the national stage of an international application or before the mailing date of a First Office Action on the merits, whichever event occurs last. 37 CFR 1.97(b).

On May 11, 2001, Ultrafryer Systems, Inc. ("Ultrafryer") filed suit against Pitco Frialator, Inc. ("Pitco") in Ultrafryer Systems, Inc. v. Pitco Frialator, Inc., in the United State District Court for the Western District of Texas, Cause No.SA01CA0393(HG), asserting that a Pitco gas fryer infringed the '641 patent. The precipitating cause of this reissue application is the subsequent disclosure to Ultrafryer by Pitco of the prior art identified and discussed in the Information Disclosure Statement ("IDS") submitted concurrently herewith.

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On July 27, 2001, two Pitco baffle plates, photos of which are attached to the IDS, were provided to Ultrafryer by Pitco. Pitco informs Ultrafryer that these baffle plates were used commercially by Pitco in connection with heat exchangers in Pitco deep fryers prior to the '641 patent's critical date.

On September 21, 2001, Pitco forwarded the several patent references identified in and attached to the IDS. Additionally, Pitco informed Ultrafryer of a baffle plate that "is a Dean fryer baffle which Pitco believes has been commercially available for at least 14 years. This baffle is understood to be in Dean's decathalon and marathon fryer models." This disclosure is also part of the IDS.

Ultrafryer is promptly bringing these prior art references to the Patent Office's attention via the instant Reissue Application. This Reissue Application narrows the issued claims by (1) confirming the visual disclosures of the drawings and implicit disclosures of the specification into express statements in the text of the specification and, (2) narrowing the claims by including these and prior explicit elements from the original drawings and specification to the claims. This is precisely what the reissue process is intended to permit.

To the extent that the disclosures of fryer baffle plates provided to Ultrafryer by Pitco and included by Ultrafryer in the IDS represent the state of the baffle plate art in deep fat fryers as of the critical date for the instant patent application, these references show that the use of webs, rows of webs, tab/hole pairs and tab/hole rows in baffle plates and the other limitations in the reissue application claims were not present in the art, were not anticipated, and were not taught by or

obvious in light of then current such baffle plates used in deep fat fryers or by such baffles that a person of ordinary skill in the art of designing baffle plates for heat exchangers contained within a deep fryer's vat containing shortening would have referred to in designing such a heat exchanger for deep fat fryers. On the contrary, the "new" prior art shows that the then current state of the art of heat exchangers for deep fat fryers had room for improvement.

Indeed, Pitco itself subsequently sought and obtained United States Patent No. 6,196,118B1, Pitco's own '118 patent claims that its invention of holes and tabs in baffle plates for use in heat exchangers in deep fat fryers subsequent to the instant '641 Patent was novel, nonobvious and patentable. Pitco made these precise representations to the United States Patent Office.

Additionally attached is a Pitco advertisement for its new Solaris baffle plate, attached as Exhibit "D", which is the subject of the underlying patent infringement suit. The advertisement shows Pitco promoting the substantial improvements made by that baffle plate over prior art heat exchangers for deep fat fryers. These are both secondary considerations relevant to nonobviousness. The lawsuit between Ultrafryer and Pitco Frialator was settled and a stipulated order of dismissal was filed with the District Court for the Western District of Texas on November 28, 2001.

With respect to the claims of the instant reissue application, none of the new art discloses a baffle plate with a higher number of tabs 42 at its downstream end than at its upstream end. Further, none of the new art discloses tabs or deflectors in a non-symmetrical arrangement.

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Although the original drawing, Fig. 3, clearly discloses the heating fluid B passing through the holes in the baffle plate 40 and holes were implicitly disclosed in the text of the specification as being created when “each tab 42 is formed [sic] by cutting plate 40 and bending a portion of plate 40 outwardly, forming crease 44 at the joint where tab 42 is bent away from plate 40.” (‘641 patent, column 3, lines 44 to 47), the word “holes” as such was not expressly recited in the text of the original specification or original claims. Likewise, the existence of “tab/hole pairs,” a plurality of such tab/hole pairs and of a plurality of webs in each row of tabs were clearly visually, expressly and explicitly disclosed in the drawings, and implicitly disclosed in the text of the specification. The amendments to the original specification make these disclosures explicit or more explicit and several of the claims are narrowed by amendment to include these and other elements.

Preliminary Statement

Applicant submits herewith SUPPLEMENTAL information of which he is aware, which he believes may be material to the examination of this application and in respect of which there may be a duty to disclose in accordance with 37 CFR §1.56.

The filing of this information disclosure statement shall not be construed as a representation that a search has been made (37 CFR 1.97(g)), an admission that the information cited is, or is considered to be, material to patentability or that no other material information exists.

The filing of this information disclosure statement shall not be construed as an admission against interest in any manner. Notice of January 9, 1992, 1135 O.G. 13-25, at 25.

Statement With Respect To Listing Of Information

A list of the SUPPLEMENTAL information is set forth in the attached (Section 9) Form PTO-1449. Copies of items listed where available are enclosed.

Explanation Of Listed Information Items

The patent references attached and identified on PTO-1449 disclose various baffle plates. The Examiner's attention is drawn to Fig. 13 from the Ashrae Handbook, Fundamentals, page 3.16 (1993), disclosed to the Examiner in the original patent's IDS and cited by the Examiner in the issued patent. Ashrae shows a single line of tabs and holes used to increase turbulence in a flue. The Examiner considered this reference, together with the other 15 cited references in the Examiner's examination of the original application, in his examination of the issued patent. Thus, the Examiner previously considered that single lines of tabs and holes have previously been used in heat exchangers and exhaust systems and the like and previously considered that deep fat fryers have had baffle plates, which baffle plates were dissimilar from the invented baffle plate. The Examiner determined that the differences in the claimed invention as set forth in the claims were patentable over that prior art. Applicant respectfully submits that the new prior art cited in this reissue application is merely cumulative of the prior art previously considered by the Examiner.

The following prior art references are disclosed in the concurrently submitted IDS. Segelken, U.S. Patent No. 1,056,373, RETARDER FOR FLUE-TUBES. Segelken discloses a retarder for flues or smoke tubes of steam boilers and discloses ears and openings on a twisted strip for mixing gases and to "bring the gases more perfectly in contact with the walls of the flue tubes so that the heat units are more completely absorbed thereby." Column 2, lines 48-51. Segelken does not

disclose (1) rows of ears or openings, (2) webs or rows of webs, or (3) use in heat exchangers contained within a deep fryer's vat containing shortening. The direction of flow is only shown against obtuse angles of the ears. The disclosure is primarily cumulative to Ashrae.

Abell, United States Patent No. 1,496,509, MUFFLER. Abell shows a muffler having within it a strip of metal comprising of diaphragm 8 which diaphragm has deflectors 9 and holes 12. Abell does not show (1) rows of deflectors, (2) webs or rows of webs and (3) use in heat exchangers contained within a deep fryer's vat containing shortening.

Brinen, United States Patent No. 2,359,288, TURBULENCE STRIP FOR HEAT EXCHANGERS. Brinen provides "means whereby certain well known temperature controlling devices for the oil of an internal combustion engine may be more efficiently served or for low conductivity fluids such as ethylene glycol." Column 1, lines 9-13. A metal strip 11 in tube 10 has cut strips 16 and 17 cut [10] from metal strip [11] "the ends [of strips 16 and 17] being slightly wider apart than the inside width of the tube [10] so when the strip [11] is pulled into the tube[10], as shown in the figures, these ends [18] will lie substantially flat against the sides of the tubes (see Figure 5)." Column 2, lines 5-9. "Before the strips [11] are pulled into the tubes [10], the interior surface of the tube is preferably tinned and under some circumstances, the strip [11] itself is tinned so that when it is in position in the tube [10], heat may be applied to the exterior of the tube sufficient to bond the ends of the wings [18] to the walls of the tube [10]; thus to make a better heat exchange contact between the strips [16 and 17] and the tubes [19]." Page 2, lines 17-25. A described advantage of this structure is that "the strength of the sides of the tubes [is] greatly increased." Column 2, lines 52-53.

Brinen teaches away from leaving a space between the ends of the tabs 42 and tube 16 as disclosed and claimed in the instant reissue application. Brinen's strips 16 and 17 are in rows but are primarily clustered directly adjacent to each other without webs between the strips in the clusters of strips and are shown having a single web per row of strips between the clusters of adjacent strips. Brinen does not disclose (1) rows of webs separating bent tabs or (2) state that it is applicable to heated air forced through heat exchangers contained within a deep fat fryer's vat containing shortening.

O'Brien, United States Patent No. 2,688,986, HEAT EXCHANGER. O'Brien states "This invention relates to heat exchange devices for heating or cooling relatively viscous fluids such as oil employed in lubricating engines and other mechanical devices." Column 1, lines 1-4. O'Brien discloses strips 33 within tubes 29 from which "tongues 37 are formed by bending the material of the strips 33 laterally between the ends of the slits 38 opposite the end slits 39." Column 3, 71-73. O'Brien does not disclose webs or rows of tab/hole pairs. O'Brien does not state that it is applicable to heated air forced through heat exchangers contained within the deep fat fryer's vat containing shortening.

Schutt, United States Patent No. 2,691,991, HEAT EXCHANGE DEVICE. Schutt states "This invention relates to devices for exchanging heat between a plurality of fluids and has particular relation to heat exchange devices for heating or cooling relatively viscous fluids such as the oil employed in lubricating engines and other mechanical devices." Schutt discloses tubes 36 holding strips of steel or turbulence members 39. The turbulence members 39 have multiple openings 47 cut

from the strip leaving a tongue 48. “An opening 47 is then selected midway between the opposite ends of the strip and the tongue 48 is then cut out of this opening . . . the strip 46 is then bent double midway between the opposite ends . . . [so the tongues of one portion of the strip stick out through the openings to the other side of the now combined strips].” Column 4, lines 18-23. Schutt does not disclose webs or rows of tab/hole pairs. Schutt does not state it is directed to building deep fat fryers.

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Neveaux, United States Patent No. 4,106,558, DEFLECTOR FOR HEAT EXCHANGER TUBE, ITS MANUFACTURING METHOD AND EXCHANGER COMPRISING SUCH DEFLECTORS. Neveaux concerns “a heat exchanger tube is circulated [sic] with a fluid, sometimes called primary fluid, more often water in the case of an exchanger which is part of a motor vehicle equipment, the heat exchange being adapted to be made between said liquid and a secondary fluid, more often air, which sweeps vanes or blades spaced along the tube . . .” Column 1, lines 10-15. Neveaux discloses a deflector “comprising a band or strip the width of which corresponds to the diameter of the tube, and one end of which is laterally offset relatively to the body of the band or strip, in such a way as to oppose escaping from the tube . . .” Column 1, line 67 - page 2, line 3. The deflector has “body 28 is provided [sic] with cuttings or punctures 37 from which are issued tongs 38 which, when the deflector is in position in the tube, constitute obstacles for the flow of water and force the central obstacles for the flow of water and force the central streams of said flow to be directed towards the internal surface 39 of the body 22 of the tube.” Column 3, lines 6-11. Neveaux does not disclose webs or rows of tab/hole pairs. Neveaux does not state that it is applicable to heated air forced through heat exchangers in deep fat fryers.

Schulz GB Patent No. 1,042,465 IMPROVEMENTS IN AND RELATING TO FLUID GUIDING ARRANGEMENTS FOR PRODUCING TURBULENT FLOW IN A TUBULAR

BODY. Schulz provides a fluid guiding arrangement having means for producing a turbulent flow in a tubular body transversed by a fluid medium, the arrangement comprising an insert element which is disposed in the hollow body and which is formed by a sheet metal strip having tongues bent out of the sheet metal to project alternatively from opposite sides thereof. The tongues being disposed so as to follow one another closely part of their cut edges having a shape conforming to that of the wall of the hollow body and lying in contact with the said wall. See page 1, lines 76-80, and page 2, lines 1-8 of the '465 patent.

Schulz teaches away from having a space between the ends of the tabs 42 and tube 16 as disclosed and claimed in the instant reissue application. Schulz does not disclose webs, rows of tab/hole pairs, or multiple columns of tab/hole pairs.

Kuhne, DE Patent No. 8,507,002, describes:

The '002 patent describes semicircular lobes (halbkreisformige Lappen) on either side of the long axis (langsamachse) of a metal strip (Blechstreifen) where the folded out (darauffolgenden)(apparently at right angles but I can't see where he specifies) lobes make an angle of 28 degrees with the long axis. This is put in a flue tube (rauchrohr) to increase efficiency through turbulence (verbesserung des wirkungsgrades durch Tubulenz des Rauchgases) and minimize the worsening of the heat exchange through dirt collection on the inner wall (Verschlechterung des Wärmeüberganges durch Schmutzablagerungen an der Rohrinnewand zu vermindern).

Kuhne does not disclose rows of tabs, rows of tab/hole pairs, or webs as required in the instant reissue application.

Pitco Baffle Plates. Photos of Pitco baffle plates provided to Ultrafryer by Pitco on July 27, 2001, which Pitco asserted had been used commercially by Pitco in connection with heat exchangers in deep fryers prior to the '641 Patent's critical date, are attached as Exhibits "A" and "B". Neither Pitco baffle plate has holes or tabs punched out of the baffle plate. The Pitco baffle plates appear to work by deflecting hot air from the outer surface of a few tabs. There is no teaching of webs, rows of webs, tab/hole pairs or tab/hole rows or the use of substantial numbers of the same.

Dean Fryer Baffle. The disclosure provided by Pitco on September 21, 2001 to Ultrafryer and identified as a Dean Fryer Baffle, photos of which are attached as Exhibit "C", which Pitco believes has been commercial available for at least 14 years is attached to the IDS. The Dean Baffle does not have, tab/hole pairs, or tab/hole rows, webs between tabs or rows of webs between tabs.

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Identification Of Person Making This IDS

The person making this statement is the attorney who signs below on the basis of information supplied by the inventor.

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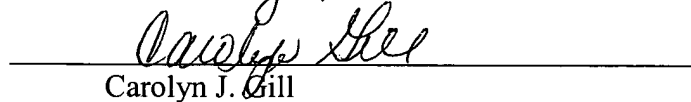


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CERTIFICATE OF EXPRESS MAILING

I hereby certify that this paper (along with any paper referred to as being attached or enclosed) is being deposited on the date shown below with the United States Postal Service, as Express Mail Post Office to Addressee (37 CFR 1.10), Mailing Label No. EL162642244 US addressed to the Commissioner of Patents and Trademarks, Washington, D.C. 20231.

Date: February 8, 2002


Carolyn J. Gill